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J.N. Andrews Honors Program
Andrews University

HONS 497: Honors Thesis

A Feast to My Eyes: Color and Human Behavior

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April 2, 2012

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Department of Visual Art & Design

Abstract

This is a study on color and how it affects emotion and human behavior. Color can both affect and express a person's mood. We see this played out by Pablo Picasso, whose Blue and Rose period paintings consisted of a dominant color expressing his emotions. Impressionist painters, such as Claude Monet, were fascinated with the variations of color that are produced in certain light conditions, different times of day, weather conditions, and seasons. By using studies on color and human behavior done by color specialists, such as Faber Birren, as well as looking back at color explorations of early painters, graphic designers can learn to utilize color in such a way that is not only visually pleasing, but also enhances the voice of their work, and viewers can become better aware of the influences of their behavior, which often play out in their actions as consumers.

Introduction & History

I have entitled my research “A Feast to My Eyes.” The reason for this is that I feel a particular self-responsiveness to color. I experience colors and enjoy them similar to the way I enjoy the taste of food. Color, to me, is a feast because it satisfies me and I indulge in it. My fascination with color was the driving force that led me to find out why color is such an active experience for me. I also wanted to know if other people experience this as well, and, if so, how designers can use that information to create more effective artworks and products.

The two artists who ignited my idea for a thesis on color were Claude Monet and Pablo Picasso. Monet awakened my interest in color and its interaction with light. Impressionism was entirely based on the effects of light on color and came about through scientific means. During this time, known as the Age of Enlightenment, people were becoming aware of their ability to reason and interpret God for themselves—particularly through nature, instead of through the church. Artists who had been cooped up in their studios now brought their studios outside to be enlightened and view the world for themselves. In seeing the effects of light first hand, artists became drawn to its grandeur and sought to replicate its majesty in their paintings. In her book on color basics, Patricia Sloane writes, “While the Impressionists stressed the scientific nature of their concern with colour, later artists such as Matisse have praised the Impressionists not for their ‘science’, but rather for their role in revealing the sensuous or perceptual aspect of colour.”¹ Impressionists put less attention on the smooth and realistic quality of their brushstrokes, and focused instead on the interplay between light and color and how we perceive colors based on light and surroundings.

1. Patricia Sloane, *Colour: Basic Principles and New Directions* (London: Studio Vista, 1967), 52.

Monet visited many places and often wrote letters about his experiences. In his book on the life and work of Monet, John House writes, "...his letters show a decreasing interest in the purely physical features of his surroundings." Instead, Monet would write about the 'brilliance' of places—concerning its colors, "all blues and pinks."² The purpose wasn't about perfection of form; it was about capturing the *impression* of a subject and its relationship with light. I particularly admire Monet's haystack paintings (Fig. 1), and even more so the ones in which he contrasts snow with sunlight. Monet shows the snow in shadow as a gray-blue, and his sunlight is hot and yellow-orange. Blue and orange lie opposite from each other on the color wheel, thus creating harmony and balance in their differences.

Picasso, on the other hand, informed me of the psychological effects of color. Though most commonly known for his cubist style of painting, a small amount of Picasso's non-cubist work can be grouped into two categories: The Blue Period and The Rose Period. The Blue Period was named from the excessive use of the color blue in Picasso's paintings (Fig. 2). For a period of time, Picasso used only variations of blue in his work, and no other color. This is due to the fact that he was going through a very sad and depressing time in his life. A dear friend had committed suicide and Picasso could no longer find the joy in living. Eventually, the old girlfriend of his deceased friend began to take interest in Picasso—thus the beginning of the Rose Period. Though still using blues, Picasso began integrating washes of happier colors, like pinks and oranges (Fig. 3). Throughout his paintings, we can see the gradual inclusion of more vibrant colors. Picasso was falling in love and his paintings captured it.³ Seeing how Picasso's

2. John House, *Monet: Nature into Art* (New Haven: Yale University Press, 1986), 25.

3. Pablo Picasso and Paolo Lecaldano, *The Complete Paintings of Picasso [of His] Blue and Rose Periods* (London: Weidenfeld and Nicolson, 1971), 9-14.

choices of color are directly reflective of his emotions at the time illuminates the power of color and shows me that it is much more than something to fill a canvas with.

The individual who I will refer to most in my research is Faber Birren, who lived from 1900 to 1988. Birren was a highly regarded color consultant of his time and has written an extensive amount of books on topics such as color theory, color therapy, color psychology, and color application. He has been consulted by the Army, the Navy, and hospitals for appropriate color schemes. His work was of tremendous use to my research and I believe it is critical for designers to be aware of.

My project is unique because it examines one of the most overlooked topics in the art world. Many people don't think twice when they see the color of bread packages in the grocery store or the color of walls in restaurants. Little do they know that the reason why bread packages avoid using the color green is because it subconsciously reminds the consumer of mold. It is often not realized that the colors of fast food restaurants encourage the fast-paced atmosphere. Color is so easily associated with art that it is common to be unaware that the proper selection of colors in package design, for example, is an art in itself. Like Birren, there are people who dedicate their lives to being color specialists, serving as a reference for suitable colors. To see that this is a career and a life passion for some people shows that color is a very involved subject. We learn the colors of the rainbow in our early years of schooling and think that this is all there is to know about color and that we are free to use it any way we please. But if fire engines were painted pink instead of red, would we be alerted to danger or want to go bake cupcakes? Color, in its seeming simplicity, is much more complex than it appears.

My project is unique in the BFA program because it is not only expressive of my own passions, but it is informative as well. While most BFA exhibitions are purely self-expressive, I

have the rare opportunity of presenting a thesis that combines art, science, and psychology and explores where they all meet.

I am not the only artist who is currently exploring the intricacies of color. Four artists (Kathy Butterly, Felix Gonzales-Torres, Roy McMakin, and Sue Williams) were featured at the Institute of Contemporary Art in Boston, Massachusetts from February to May of 2012 in an exhibit entitled, *Figuring Color*. Their works are centered around the idea of color as it represents a metaphorical human body. Butterly, for example, uses pale peaches and pinks in her ceramics to resemble flesh tones (Fig. 4). Williams paints abstract images of the many colors of the interior of the body (Fig. 5). The aim of the four artists is to create works of art that are sensual through color and form—visually, tactilely, and emotionally.

Another color event recently took place in New York City. Put on by *Print Magazine* (a quarterly journal of the Graphic Arts), a color conference was held for three days in October 2011, which invited creative thinkers to explore color through all aspects. The speakers for the conference included an array of color experts and enthusiasts. Talks featured topics such as, “Does Color Kill?” and “Color and Controversy.” Guests were invited to participate in workshops such as, “Your Brain on Color” and “Color Theory Workshop.”

Methodology

To determine the best way to display the effects of color on human behavior in my BFA exhibition, I conducted two color explorations. The first was a painting study (Fig. 6 and 7) carried out in the following steps:

1. I chose a color and emotion to express: Blue and Sadness⁴
2. Next, I created a color palette to paint with, using only different hues to blue. To darken blues, I added black or brown, and I added white to lighten them. No other color was used.
3. While making expressions of sadness in a mirror, I used blue paint tones to transfer what I was seeing onto the canvas. My goal was not to create an accurate representation of myself, but instead to fully capture a feeling of sadness.
4. Finally, I painted an expression of happiness/joy using the same blue tones. I wanted to see if expression could be confusing to interpret if the colors used were contradiction to the feeling being shown.

I also kept a color journal (Fig. 8). For six nonconsecutive days, I recorded the color I wore that day, the weather, and moods experienced. This was to see if color altered my mood during the day or if my mood was predetermined by the color selected. I was also curious to see if weather was a factor in my mood.

At the conclusion of my explorations, I created a series of paintings to be displayed in my BFA exhibition. These paintings explore color and its effects on human behavior.

4. Edith Anderson Feisner, *Color Studies* (New York: Fairchild Publications, Inc., 2001), 120. Blue can have both positive and negative connotations. It can represent royalty, coolness, truth, tranquility, and loyalty, but it can also denote introversion, sadness, and depression.

Findings & Results

One important finding I came across was how we, as human beings, are able to see color. In a way, color is nonexistent. Or rather, it only exists when light is present. Of course, there would be no way to know if color existed without light because we would not be able to see it. Regardless, it has been proven that the way we interpret light rays and translate them into color results from an interaction between optic nerves and the brain. Cones and rods in the retina differentiate between light and dark. The seven colors of the spectrum are visible to us because of their varied light wavelengths. Interior designers Sara O. Marberry and Laurie Zagon reveal that “objects are not actually of a fixed physical color. Instead, they project color because light is reflected from their surfaces.”⁵ In other words, any color that you see is not really that color, but a *projection* of that color, based on the light rays that that object is able to reflect and absorb. Green leaves are not really green. In fact, when held under red light, they will appear black.

Another important finding uncovers the role of color in the foods we eat. Birren brings to attention the seldom-known fact that butter and margarine are tinted to create a more appetizing color. If butter is too white, it looks like lard, and if it is too yellow, it looks rotten. Birren argues, “People demand the right shade and will accept or reject a product on its appearance—nutrition aside.”⁶ It is interesting to see that color is a stronger factor than nutrition when it comes to final purchase decisions. Birren continues on this subject to say that not all foods work in the same

5. Sara O. Marberry, and Laurie Zagon, *The Power of Color: Creating Healthy Interior Spaces* (New York: Wiley, 1995), 15. Marberry and Zagon write that all objects (animate or inanimate) possess every color of the spectrum. In reality, every object is the same color, but they do not all reflect and absorb the same amount of light—thus the human eye sees various colors.

6. Faber Birren, *Light, Color, and Environment* (New York, Van Nostrand Reinhold Co., 1969), 91. According to Birren’s studies, appetite is most aroused in the red-orange and orange region. Yellow-orange is not as appetizing, but yellow is. Yellow-green is rarely appetizing, though it can be quite fashionable when used in clothing or the home.

range of appetizing colors. For example, for a short time grocery stores sold colored bread. This was not a success, as people did not seem to take a liking to it. Though the bread tasted like regular bread, it was difficult to consume in unnatural colors. Says Birren, “Although ‘pretty’ colors seem appropriate to cake frostings and cookies, they would be heartily rejected if used for mashed potatoes. A glass of purple grape juice would be relished—but not a purple gravy or consommé [broth].”⁷

Not only does color affect us emotionally, but it affects us physically, as well. In 1978, an experiment was conducted using the colors pink and blue.⁸ The hypothesis of the experiment was that these two colors had significant impact on one’s physical strength. While staring at a 2 x 3 ft. piece of pink construction paper at a 15-inch distance from the eyes, the subject is asked to raise one arm straight out in front of his body at a 90° angle. While pressing down on the subject’s arm for three seconds, the subject is asked to resist the pressure and maintain his stance. The subject was reported to have experienced noticeable loss of strength. The test was then repeated using a blue piece of construction paper; the subject regained his strength. This test was tried on 153 subjects, and only two did not reveal a loss of strength.

7. Ibid., 92.

8. Alexander G. Schauss, “Tranquilizing Effect of Color Reduces Aggressive Behavior and Potential Violence.” *Orthomolecular Psychiatry* 8, no. 4 (1979): 218-221.
<http://www.orthomolecular.org/library/jom/1979/pdf/1979-v08n04-p218.pdf>.

Apart from my fascinating findings, the results of my own color explorations appear as follows:

Painting Study:



Fig. 6. Erica Brusco, *Blue Sadness*



Fig. 7. Erica Brusco, *Blue Happiness*

While I painted *Blue Sadness*, I began to feel sad emotionally because I was mimicking the faces and using the colors. On the contrary, *Blue Happiness* felt confusing as I was painting it. I had difficulty feeling genuinely happy because I was painting with such cold, somber colors. Though the expression portrayed complete happiness, the power of color dominated the subject matter. To compensate, I unconsciously began to mix brighter, more lively shades of blue to echo the feeling of happiness. Taking a close look at the two paintings, one can observe that *Blue Sadness* is made of grayed blues, while the *Blue Happiness* is made of brighter, more saturated blues in my attempts to make the color fit the emotion.

As demonstrated in my paintings, color greatly affects interpretation. When I look at *Blue Sadness*, I deeply sense the emotion shown in the expression of the eyes. Contrarily, when I look at *Blue Happiness*, I immediately think of mysticism. Happiness is not my first interpretation because the subject is enveloped in unnatural skin tones that cast a certain eeriness on the painting. People who observed these paintings shared similar interpretations; one said *Blue Happiness* looked like a fairy. (Please note that these painting studies are not the ones that were used in my exhibition, but were the example that I followed to complete the final paintings.)

Color Journal:

Color Worn	Weather	Mood
Royal Blue	Rainy	Unenthusiastic, Gloomy
Black	Overcast	Quiet, Contemplative
Magenta	Overcast, Rainy	Bright, Romantic
Emerald Green	Overcast	Elegant, Accomplished
Lavender Purple	Snowy	Playful, Childish
Dandelion Yellow	Sunny	Happy, Cheerful, Positive

Fig. 8.

The results of my color journal were difficult to analyze. Sometimes the color and mood were reflective of the weather. Other times, the color and mood matched, but were directly opposite from the weather. Some days, I purposely chose a color that matched the weather and the mood I assumed I would be in. Other days, I chose a color that did not match the weather because I did not want to conform to gloominess, and thus experienced noticeable shifts in mood.

The results of my color journal give insight to my painting study. When I wore royal blue, the weather was rainy, and I felt gloomy. I did not want to wear a more lively color because I did not want to compete with nature's solemnity. When I chose to triumph over the weather and wear magenta, it was confusing, then uplifting. Though it was raining, the color I was wearing was bright enough to make me feel bright, emotionally.

BFA Exhibition:

Because color is such an intricate subject, I came up with numerous ways to present my findings in my BFA exhibition. Color can be interpreted both symbolically and psychologically, and each approach carries different meanings—symbolical meanings in color do not always match up with psychological effects, and symbolical meanings of the same color do not always coincide with each other (as in the case of red representing both love and hate). Psychological effects can differ amongst each other depending on the environment in which one is viewing a certain color. For example, light shades of green have been shown to sooth and relax people, and have been used in hospital rooms for this purpose. Green can be disturbing to the appetite when applied to certain foods (other than what is naturally green, such as spinach and broccoli), but a tranquil color when related to nature (as in green pastures and growing plants). Symbolically, green can represent envy,⁹ yet nature and envy do not seem related. Furthermore, when standing in a green room, it is unlikely that a person will begin to feel envious.

Johannes Itten attempts to check the accuracy of color expressions using two simple tests. He theorizes that if colors are complementary, then their interpretations will be complementary. Likewise, when colors are combined, the resulting interpretation should coincide with the blend of interpretations of the original color. His two tests appear as follows:

1. Complementary Pairs
 - yellow : violet = bright knowledge : dark, emotional piety
 - blue : orange = submissive faith : proud self-respect
 - red : green = material force : sympathy
2. Mixed Colors
 - red + yellow = orange

9. Birren, *Selling with Color* (New York: McGraw-Hill Book Company, Inc., 1945), 175. According to Birren's list of "color jargon," red means passion and rage, yellow despises, green is jealousy, and blue is indispensable—*feeling blue, once in a blue moon, blue law*, etc.

power + knowledge = proud self-respect
 red + blue = violet
 love + faith = piety
 yellow + blue = green
 knowledge + faith = compassion

Itten concluded that while parts of his tests work, meaning can be altered completely depending on the shade of the color; therefore, color meaning and our subjectivity remain variable.¹⁰

Because color meaning is not synonymous throughout all applications and contexts, I determined that it would be most suitable to narrow down my color studies and explore color in terms of human behavior for my exhibition, as that is what most interests me. With the direction of my advisors and professors, I concluded that the best way to do so would be to create large-scale paintings of human emotion being expressed through color. The scale allows the viewer to be fully submerged in the particular color, and lessens the possible affect of surrounding colors. The paintings are cropped in close to feature the eyes—the source of expression. Each painting is made up of a singular color in tints and shades from light to dark to show dimension.

I created my series to take the viewer on a walk through emotions as experienced through color. The series begins with a cool green painting (Fig. 9). Green is the color of growth and nature.¹¹ It often has a calming effect and puts people at ease. Green is connected to pure relaxation and restoration. If we consider Psalm 23:2-3, “He maketh me to lie down in green pastures...He restoreth my soul,” we can find truth in the properties of green. Green is soothing and causes people to close their eyes and inhale deeply to instill peace. This is the expression that I wanted to capture in my painting. The subject’s eyes are closed; they are resting, and the body

10. Johannes Itten, *The Elements of Color: A Treatise on the Color System of Johannes Itten, Based on His Book The Art of Color* (New York: Van Nostrand Reinhold Co., 1970), 89. Itten’s test was based on his previous descriptions of the meaning of color.

11. Feisner, *Color Studies*, 120.

is restoring itself while it does so. Symbolically, green denotes safety. Connecting this to closed eyes, one must feel safe in order to close the eyes to the dangers of the world.

After entering deep peace, the viewer is invited to move on toward my blue painting (Fig. 10). In my blue painting, I depict sadness, depression, anxiety, and longing. Blue is another color of nature. The color of the rippling streams, blue possesses the same relaxing qualities as green (“He leadeth me beside the still waters,” Psalm 23:2). Blue lowers blood pressure and promotes calmness. However, exposure to too much blue (and usually a darker blue) can cause the subject to pass the point of total relaxation and enter into an abyss of depression. This is where the phrase, *feeling blue*, comes from, and that is the expression I chose to portray in my painting. At this stage, blue is more closely representative of the dark, stormy seas. It is not relaxing and peaceful like a whispering brook, but violent and loud like the crashing waves of a tempestuous ocean that threatens to swallow us up.

At this point, a mood-lifter is crucial. My next painting is pink (Fig. 11). Pink is the happiest of colors—even more so than yellow. Pink is the color of sweet love.¹² It is not as passionate as the love that red represents, but it is a more innocent form of love. It is the love that is associated with giggles and butterflies. It is the love that is always happy. Pink is another soothing color because it reduces stress. It is also a fascinating color because of its powerful effects on human behavior. Pink is generally associated with the female sex, but tests have shown that the color actually affects males as well. It has been used in jail cells to calm aggression.¹³ Pink causes men to connect with their feelings and emotions because it gives them

12. Feisner, *Color Studies*, 119.

13. J.L. Mortan, “Drunk Tank Pink,” <http://www.colormatters.com/color-and-the-body/drunk-tank-pink> (accessed March 2012). Too much pink, however, is aggravating. If a violent man spends too much time surrounded by pink, he will calm down for a while, but be risen to anger again—possibly even more so than before.

a sense of gentleness. Pink makes men feel physically weaker and has been used in football locker rooms to weaken the visiting team.¹⁴ My pink painting depicts delight, loveliness, and serene satisfaction.

This is when the viewer is taken to the color orange (Fig. 12). A mixture of red and yellow, orange is the most vibrant of colors.¹⁵ It is associated with warmth and ambition and signifies new beginnings and enthusiasm. As shown in the eyes of my painting, orange is lively, exuberant, and joyous. My orange painting is placed after pink because once you have rid yourself of all aggression and negative feelings and replaced them with cheerfulness, you can then approach life with optimism and energy. The viewer leaves my exhibition on a high note—visually stimulated and emotionally enthused.

When viewing my paintings, the meaning should be easy to interpret based on the expression in the eyes, but can also be informed by the color it is shown in. If one does not understand the expression, he or she can look at the color. If one does not understand the meaning of the color, he or she can look at the expression. Both serve to give insight toward the other, and together make a more powerful image.

14. Ibid.

15. Itten, *The Elements of Color*, 89.

Discussion

Color is extremely difficult to understand because of its complexities, and painters encountered this early on. If a gray object appeared to be reflecting a violet tint from a nearby object, the artist would be sure to paint the object as truly gray, though it was appearing as violet.¹⁶ The painter may add flecks of violet to the part of the object that was closest to the violet item to illustrate the visual relationship between the two objects, but the gray object would not be cast as completely violet.

Eventually, Edwin Land developed a theory for this color-changing phenomenon. This theory, known as the retinex theory, posited that color is determined in relation to surrounding colors, and changes when placed on different backgrounds.¹⁷ Johannes Itten and Joseph Albers contributed to this theory with their own color tests (Fig. 13 and 14). Land also worked on the idea of color constancy, which is when colors remain constant to the human eye, regardless of surroundings.

As we can see, there is much science that is involved in color, and Birren, likewise, is very intrigued by it¹⁸—however, he recommends designers to not get so caught up in the science of perceiving color that we forget how to use its psychological properties in our work. He advises:

Color may be discussed from several viewpoints. When one thinks of it in terms of people, however, of human experience and sensation, there is little need to discuss matters of physics and chemistry, because they will only serve to confuse the issue. Color is greatly like flavor and odor; they all have physical origin in some sort of stimulation.

16. Martin Kemp, *The Science of Art: Optical Themes in Western Art from Brunelleschi to Seurat*, (New Haven: Yale University Press, 1990), 307.

17. Steven Bleicher, *Contemporary Color: Theory and Use*, (New York: Delmar, Cengage Learning, 2012), 44.

18. Birren dedicates an entire article to color constancy. Birren, “Color Perception in Art: Beyond the Eye into the Brain.” *Leonardo* 9, no. 2 (1976): 105-110. <http://www.jstor.org/stable/1573116>.

Yet to analyze the chemical composition of sugar or the oil of a rose is by no means to define sweetness. The latter is a human interpretation, a psychological thing. It is a sensation—and sensation rather than wavelengths or molecules or atoms is what should concern those who use color (or taste or odor) in merchandising and advertising.¹⁹

According to Birren, color is experienced emotionally, not scientifically. We don't think of how we see color when we see it, we just experience the results. Therefore, to understand how color affects people and their actions will benefit a designer more than understanding how people are able to see color in the first place.

Toward the conclusion of his book, *Selling with Color*, Birren harvests two facts: (1) Color is extremely powerful in advertising and can be the difference between success and failure, but (2) this does not mean that color should be used haphazardly and negligently. In the words of Birren, "[Color's] value is largely dependent on a wise and appropriate application of its powers. Merely to use color for the sake of color is, of course, not enough."²⁰ Birren offers the following considerations for designers to utilize when approaching a project:

1. Attention-value: Color will catch the eye where mere black and white may fail. However, because color is compelling, it may also be distracting. Some tests have shown that, whereas color may have higher noticeability, black and white have greater readership. This means that care must be taken in the typographical layout. Color should be simple and appropriate, and should be tied in to hold the advertisement together. It should invite readership rather than discourage it.
2. Realism: In many products, color is important in the display of a product. As a dimension, it may be as descriptive as size, weight, price, etc. Here, perhaps, is the most obvious use of color—and one of the best—to glorify a product in its full reality.
3. Identity: Colors are more easily retained in the memory than are words or symbols. Used to identify a product or a service, and persistently employed to build up recognition, color has potent force, and primitive hues are generally superior to intermediate or modified colors.

19. Birren. *Selling With Color*, 16.

20. Ibid., 114.

4. Psychology: Because of the many curious mental and emotional associations of color, subtle applications are possible. The use of color to imply warmth, coolness, cleanliness, etc., may be extremely effective and may well support copy efforts.
5. Beauty: Color has intrinsic appeal. Glorified in drawing or photograph, it will command interest, whether or not it has a direct bearing on the copy message. This utility, distinct from attention-value, demands greater artistic skill and has produced some of the best advertisements ever composed—as aesthetically satisfying as any good work of art.²¹

The above outline serves as a valuable color guide that designers should consistently refer to in order to construct the most effective product.

As we have learned, a designer's purpose is to communicate visually. This can be achieved entirely through black and white. However, color serves to communicate both visually *and* emotionally, and, when utilized correctly, adds additional meaning to a design, thus strengthening the impact of the designer's work. Marberry and Zagon write, "When colors are chosen personally or randomly, an uneasy, lifeless, or even chaotic effect often results. The overall success of a design scheme can be undermined by the lack of full-spectrum balance."²² When designing for public appreciation, residence, or consumption, a designer must be careful not to select colors based on personal preferences because those colors may not promote the piece at all. This is why understanding color is so important for a designer. Similar to verbal language, when a designer becomes more fluent in the visual language of color, he or she can communicate much more effectively to the consumer.

The knowledge of color may be appealing information for a consumer as well. One can analyze why he or she is buying a certain product over another. Perhaps it is not because the product *is* of better quality, but because it *looks* of better quality and the color selections connect

21. Ibid., 114-115.

22. Marberry and Zagon, *The Power of Color*, 9.

with certain emotions quicker and more easily.²³ It is not necessary for the consumer to speak the language of color in order to be affected by it, however. The effects of color occur, regardless; meaning is still conveyed because of the way the brain processes color through emotion, and the designer's job is accomplished. The conclusion stands that if we all learn the language of color, we will be much more successful in communicating, interpreting, and understanding.

Further Research

To further this research, one might find it helpful to conduct a color study with a control group to observe reactions among people. I also think it would be fascinating to record colors found in people's wardrobe and compare them with personality traits. To give that analysis merit, research would also have to be conducted to determine a list of popular colors being sold in stores and if the wardrobes observed are complying. One should also note gender, race, and complexion, as those are factors that play into color preferences. Another addition to my research would be to list specific events in which color has been used to treat physical ailments. There remain aspects of color that I did not discuss in my paper because they do not contribute to human behavior. For example, one might be interested in studying certain forms and shapes that have been assigned to different colors.

Questions that arose while conducting my research were the following: *How did the meaning of color come to be? Did God purposefully orchestrate our bodies to react to color specifically for the betterment of our lives? Did he make blue and green the dominant colors of*

23. Robin Landa, *Graphic Design Solutions* (Massachusetts: Cengage Learning, 2011), 289. People transfer their perception of a package to the product it contains. It is estimated that 65-75% of purchase decisions are made standing in front of the packaging in the store.

nature because He knew they would relax us and give us ease in our daily stress? Or do we merely feel at ease because those are the colors of nature, and nature in and of itself is relaxing? If God had made the sky orange and the trees purple, would we associate those colors with nature and relaxation? Furthermore, why do human beings share similar psychological responses to color, regardless of cultural differences? I believe that God created color and the way humans respond to it hand in hand. Neither came first, and neither is a byproduct of the other. Perhaps more scientific research on how and why our eyes see different wavelengths could be done to strengthen this. Or, color could remain a mystery—beautiful and compelling in its power.

Appendix



Fig. 1. Claude Monet, *Haystack*, 1890.



Fig. 2. Pablo Picasso, *The Old Guitarist*, 1903.



Fig. 3. Pablo Picasso, *Boy with a Pipe*, 1903.



Fig. 4. Kathy Butterly, *More Plenty*, 2006.

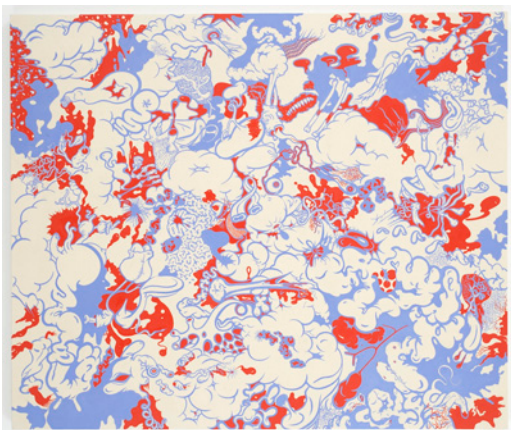


Fig. 5. Sue Williams, *American Enterprise*, 2009.

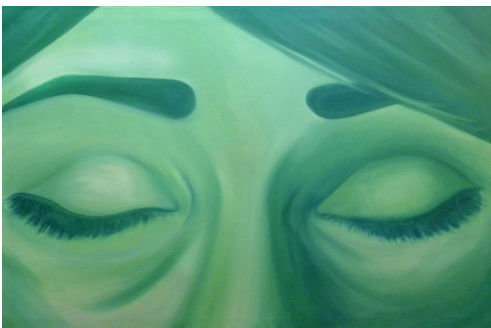


Fig. 9. Erica Brusco, *Green Pastures*, 2012.



Fig. 10. Erica Brusco, *Feeling Blue*, 2012.

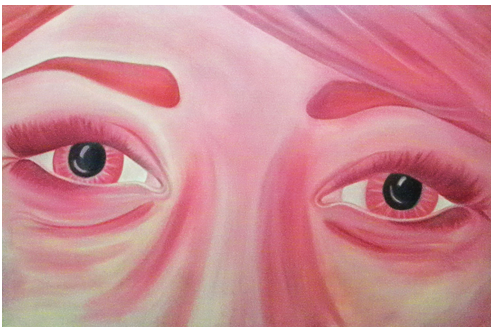


Fig. 11. Erica Brusco, *Tickled Pink*, 2012.

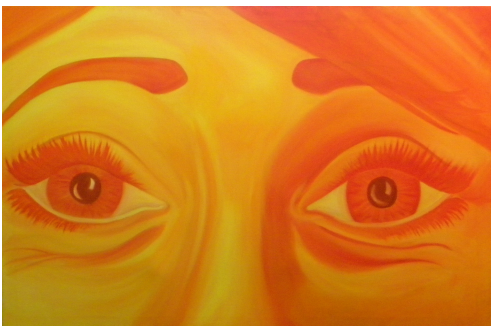


Fig. 12. Erica Brusco, *Orange Energy*, 2012.

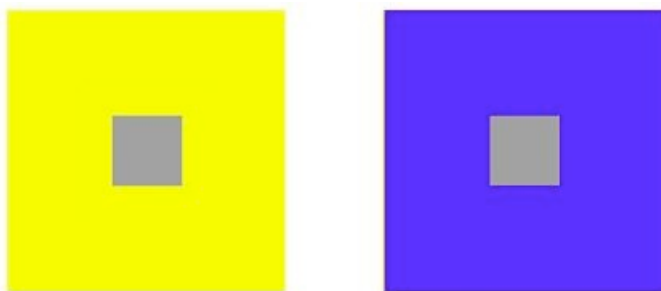


Fig. 13. Johannes Itten.

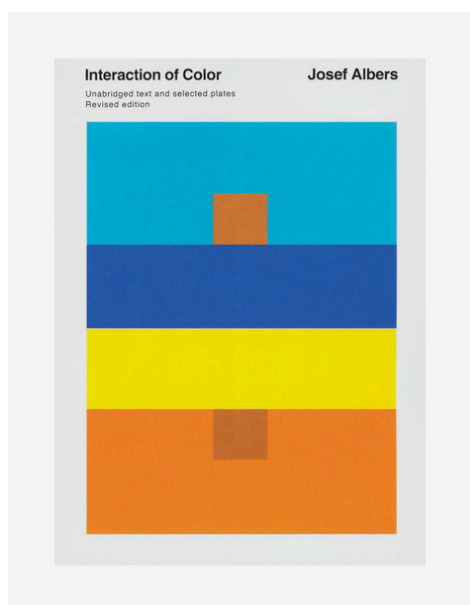


Fig. 14. Joseph Albers.

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